ABSTRACT

A clock switching technique allows selecting an input clock signal from two clock sources. The two clock sources are asynchronous to one another and a clock select signal is used to determine which of the clocks will be switched onto the clock output line. The clock select signal is asynchronous to both clock sources and can be either from a programmable bit implemented under software control or as a single signal generated from some other logic block. The technique guarantees that the switching to the desired clock based on the binary value of the clock select signal onto the clock line is glitch-free. The clock switching technique is independent of the two clock source frequencies as well as the system clock frequency.

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